

EXHIBIT B: PENDING CLAIMS

Application No. 09/873,403 (Attorney Docket No. 8449-178)

(as elected under 37 C.F.R. § 1.142)

1. A pharmaceutical composition comprising an amount of a purified molecular complex effective for treatment or prevention of an infectious disease or a proliferative disorder, and a pharmaceutically acceptable carrier, said molecular complex comprising an alpha (2) macroglobulin polypeptide noncovalently associated with an antigenic molecule which displays the antigenicity of (i) an antigen of an infectious agent or (ii) an antigen overexpressed in a cell of a proliferative disorder relative to its expression in a cell of said cell type that is not of said proliferative disorder.
2. The pharmaceutical composition of Claim 1 wherein the antigenic molecule displays the antigenicity of an antigen of an infectious agent.
3. The pharmaceutical composition of Claim 1 wherein the proliferative disorder is cancer and wherein the antigenic molecule displays the antigenicity of an antigen overexpressed in a cancer cell relative to its expression in a noncancerous cell of said cell type.
4. The pharmaceutical composition of Claim 1 wherein the antigenic molecule is a tumor specific antigen or a tumor-associated antigen.

7. ~~A purified molecular complex comprising an alpha (2) macroglobulin polypeptide noncovalently associated with an antigenic molecule of an infectious agent or an antigen overexpressed in a cell of a proliferative disorder cell relative to its expression in a cell of said cell type that is not of said proliferative disorder.~~

8. A purified population of molecular complexes in which at least 65% of said complexes comprise an alpha (2) macroglobulin noncovalently associated with an antigenic molecule.

9. A purified population of molecular complexes purified from a recombinant cell in which at least 65% of said complexes comprise an alpha (2) macroglobulin noncovalently associated with an antigenic molecule.

37. The purified molecular complex of Claim 7 wherein the antigenic molecule displays the antigenicity of an antigen of an infectious agent.

38. The purified molecular complex of Claim 7 wherein the proliferative cell disorder is cancer and wherein the antigenic molecule displays the antigenicity of an antigen overexpressed in a cancer cell relative to its expression in a noncancerous cell of said cell type.

39. The purified molecular complex of Claim 7 wherein the antigenic molecule is a tumor specific antigen or a tumor-associated antigen.

40. The purified molecular complex of Claim 7 wherein the alpha (2) macroglobulin polypeptide and/or the antigenic molecule are chemically synthesized or recombinantly produced.

41. The pharmaceutical composition of Claim 1 comprising an amount of a purified molecular complex effective for treatment or prevention of an infectious disease, wherein the infectious disease is caused by a pathogen selected from the group consisting of hepatitis type B virus, adeno-associated virus, cytomegalovirus, papilloma virus, polyoma viruses, SV40, herpes simplex type I (HSV-I), herpes simplex type II (HSV-II), Epstein-Barr virus, variola (smallpox), vaccinia virus, human immunodeficiency virus type I (HIV-I), human immunodeficiency virus type II (HIV-II), human T-cell lymphotropic virus type I (HTLV-I), human T-cell lymphotropic virus type II (HTLV-II), influenza virus, measles

virus, rabies virus, Sendai virus, poliomyelitis virus, coxsackieviruses, rhinoviruses, reoviruses, rubella virus (German measles) Semliki forest virus, arboviruses, hepatitis type A virus, *Streptococcus pyogenes*, *Streptococcus pneumoniae*, *Neisseria gonorrhoea*, *Neisseria meningitidis*, *Corynebacterium diphtheriae*, *Clostridium botulinum*, *Clostridium perfringens*, *Clostridium tetani*, *Haemophilus influenzae*, *Klebsiella pneumoniae*, *Klebsiella ozaenae*, *Klebsiella rhinoscleromotis*, *Staphylococcus aureus*, *Vibrio cholerae*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Campylobacter* (*Vibrio*) *fetus*, *Campylobacter jejuni*, *Aeromonas hydrophila*, *Bacillus cereus*, *Edwardsiella tarda*, *Yersinia enterocolitica*, *Yersinia pestis*, *Yersinia pseudotuberculosis*, *Shigella dysenteriae*, *Shigella flexneri*, *Shigella sonnei*, *Salmonella typhiimurium*, *Salmonella typhi*, *Treponema pallidum*, *Treponema pertenue*, *Treponema carateneum*, *Borrelia vincentii*, *Borrelia burgdorferi*, *Leptospira icterohemorrhagiae*, *Mycobacterium tuberculosis*, *Toxoplasma gondii*, *Pneumocystis carinii*, *Francisella tularensis*, *Brucella abortus*, *Brucella suis*, *Brucella melitensis*, *Mycoplasma spp.*, *Rickettsia prowazekii*, *Rickettsia tsutsugumushi*, *Chlamydia spp.*, *Helicobacter pylori*, *Entamoeba histolytica*, *Trichomonas tenas*, *Trichomonas hominis*, *Trichomonas vaginalis*, *Trypanosoma gambiense*, *Trypanosoma rhodesiense*, *Trypanosoma cruzi*, *Leishmania donovani*, *Leishmania tropica*, *Leishmania braziliensis*, *Pneumocystis pneumonia*, *Plasmodium vivax*, *Plasmodium falciparum*, and *Plasmodium malaria*.

42. The pharmaceutical composition of Claim 1 comprising an amount of a purified molecular complex effective for treatment or prevention of a proliferative cell disorder selected from the group consisting of fibrosarcoma, myxosarcoma, liposarcoma, chondrosarcoma, osteogenic sarcoma, chordoma, angiosarcoma, endotheliosarcoma, lymphangiosarcoma, lymphangioendotheliosarcoma, synovioma, mesothelioma, Ewing's tumor, leiomyosarcoma, rhabdomyosarcoma, colon carcinoma, pancreatic cancer, breast cancer, ovarian cancer, prostate cancer, squamous cell carcinoma, basal cell carcinoma, adenocarcinoma, sweat gland carcinoma, sebaceous gland carcinoma, papillary carcinoma, papillary adenocarcinomas, cystadenocarcinoma, medullary carcinoma, bronchogenic carcinoma, renal cell carcinoma, hepatoma, bile duct carcinoma, choriocarcinoma, seminoma, embryonal carcinoma, Wilms' tumor, cervical cancer, testicular tumor, lung carcinoma, small cell lung carcinoma, bladder carcinoma, epithelial carcinoma, glioma, astrocytoma, medulloblastoma, craniopharyngioma, ependymoma, pinealoma, hemangioblastoma, acoustic

neuroma, oligodendrogloma, meningioma, melanoma, neuroblastoma, retinoblastoma, acute lymphocytic leukemia, myeloblastic, promyelocytic, myelomonocytic, monocytic, erythroleukemia, chronic myelocytic, leukemia, chronic lymphocytic leukemia, polycythemia vera, Hodgkin's disease lymphoma, non-Hodgkin's disease lymphoma, multiple myeloma, Waldenström's macroglobulinemia, and heavy chain disease.